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Synthesis and antimicrobial activity of bis-4,--sulfonamidated 5,7-dinitrobenzofuroxans

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Abstract

A new series of bis-4,6-sulfonamidated 5,7-dinitrbenzofuroxans 7-11 had been synthesized and tested for antimicrobial activity. The structures of new sulfanilamide derivatives were characterized by elemental analysis, IR spectroscopy, and mass spectrometry (MALDITOF). The synthesized compounds were tested for their in vitro antimicrobial activity using the disk diffusion method against Gram-positive bacteria Staphylococcus aureus; the Gram-negative bacteria Escherichia coli, Pseudomonas aeruginosa, and Proteus mirabilis; the fungal strain Aspergillus niger; and the yeast-like pathogenic fungus Candida albicans. Our results indicate that the compounds 7-11 exhibit potent antimicrobial activity. The stability of the compounds was evaluated by TG and DSC methods.

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